

logistic regression analysis was used to evaluate the predictive values of serum BMPs.

**RESULTS** Subjects with Agatston score  $\geq 400$  ( $n=254$ ) had higher serum levels of BMP-2 ( $116.3 \pm 12.5$  pg/ml vs.  $87.8 \pm 10.7$  pg/ml,  $p<0.001$ ), BMP-4 ( $91.2 \pm 9.7$  pg/ml vs.  $73.2 \pm 8.7$  pg/ml,  $p=0.017$ ) and BMP-7 ( $91.2 \pm 8.3$  pg/ml vs.  $51.3 \pm 5.9$  pg/ml,  $p<0.001$ ) than those with Agatston scores  $< 400$  ( $n=319$ ). Agatston scores were positively correlated with the serum levels of BMP-2 ( $r=0.624$ ,  $p<0.001$ ), BMP-4 ( $r=0.503$ ,  $p<0.001$ ) and BMP-7 ( $r=0.662$ ,  $p<0.001$ ). After adjustment for other risk factors, multivariate logistic regression analysis considered that increased serum levels of BMP-2 [OR:1.646(1.125,3.073),  $p<0.001$ ], BMP-4 [OR:1.243(1.033,1.35),  $p=0.023$ ] and BMP-7 [OR:2.085(1.376,3.598),  $p<0.001$ ] were independent predictors for the progression of CAC.

**CONCLUSIONS** Serum BMP-2, BMP-4 and BMP-7 can predict the CAC in the elderly.

#### GW26-e1478

##### Predictive Value of Soluble Urokinase-type Plasminogen Activator Receptor in Patients with Acute Coronary Syndrome Undergoing Percutaneous Coronary Intervention

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**OBJECTIVES** To uncover the value of Soluble urokinase-type plasminogen activator receptor (su-PAR) in predicting major adverse cardiovascular events (MACE) among patients with acute coronary syndrome (ACS) undergoing percutaneous coronary intervention (PCI).

**METHODS** A total of 103 patients with ACS undergoing PCI in Cardiology Department of SUN Yat-sen University The Third Affiliated Hospital between June 2005 to August 2006 were enrolled. In all these patients, we measured the level of su-PAR in plasma with a solid phase enzyme-linked immunosorbent assay (ELISA) when the cases were brought into this study and two weeks after they were brought into this study. We divided all the cases into three groups according to the u-PAR. The end points were all-cause mortality and fatal or nonfatal recurrent myocardial infarction (MI).

**RESULTS** During a median follow-up period of 7 years, 13 deaths and 3 fatal and 11 nonfatal recurrent MIs occurred. MACE rates of low, intermediate, and high tertiles according to the su-PAR were 12.1%, 20.0% and 31.4%, respectively. Both univariate analysis and multivariate analysis showed that the su-PAR was the independent predictor of MACE (HR=2.28, 95%CI (1.41, 3.39),  $P=0.002$ ; HR=2.16, 95%CI (1.32, 3.38),  $P=0.005$ ).

**CONCLUSIONS** Urokinase-type plasminogen activator receptor could be a independent risk predictor of major adverse cardiovascular events among patients with acute coronary syndrome undergoing percutaneous coronary intervention.

#### GW26-e1582

##### The Relation between Glycosylated Hemoglobin and Severity of Coronary Artery Lesions in Patients with Coronary Heart Disease and Type 2 Diabetes Mellitus

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**OBJECTIVES** To find the relationship between different levels of glycosylated hemoglobin and severity of coronary artery lesions in patients with coronary heart disease and type 2 diabetes mellitus.

**METHODS** We collected the data of 184 patients with coronary heart disease and type 2 diabetes mellitus. Then the patients were divided into three groups based on glycosylated hemoglobin levels including group A ( $n=70$ , HbA1C $\leq 7.0\%$ ), group B ( $n=37$ ,  $7.0\% < \text{HbA1C} < 8.0\%$ ), and group C ( $n=77$ , HbA1C $\geq 8.0\%$ ). Gensini score was used to assess the severity of coronary lesions by coronary angiography. All statistical tests were operated with program SPSS13.0 and  $P<0.05$  was considered statistically significant.

**RESULTS** (1) The incidence of left main lesions was 7.1%, 2.7%, and 10.4% in group A, group B, group C, respectively. The prevalence of diffuse lesions in each group was 32.9%, 24.3%, and 26.0%, respectively. The prevalence of complete occlusive lesions in each group

was 28.6%, 27.0%, and 27.3%, respectively. There were no significant differences in the left main lesions, diffuse lesions, and complete occlusive lesions between three groups ( $P>0.05$ ). (2) The median of Gensini score of three groups was 57.75, 56.00, 46.00, respectively. By square root transformation, all the ratios of the Gensini score are normal distribution. One-way ANOVA was used as appropriate to compare means among different groups, and the results show no significant differences between the three groups ( $P>0.05$ ).

**CONCLUSIONS** Among patients with coronary heart disease and type 2 diabetes mellitus, there was no significant correlation between glycosylated hemoglobin and severity of coronary artery lesions.

#### GW26-e3913

##### Correlation between clopidogrel low response and CYP2C19 gene polymorphism in CAD patients after PCI

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**OBJECTIVES** To explore the correlation between clopidogrel low response and CYP2C19 gene polymorphism in coronary artery disease (CAD) patients after percutaneous coronary intervention (PCI).

**METHODS** A total of 200 patients with CAD after PCI are admitted to our hospital from October 2013 to October 2014 in this study, and treated with dual antiplatelet drugs, aspirin and clopidogrel. The clopidogrel response is judged by depending on the ADP-induced platelet inhibition rate tested by thromboelastogram. In this study the ADP-induced platelet inhibition rate less than 30% is defined as clopidogrel low response and the gene chip detection technology is used to detect the genotype of CYP2C19 to further explore the correlation between clopidogrel low response and CYP2C19 gene polymorphism in CAD patients after PCI.

**RESULTS** In these 200 patients, the ADP-induced platelet inhibition rate is significantly statistical difference between patients carrying CYP2C19\*1/\*1 and CYP2C19\*1/\*2, CYP2C19\*1/\*1 and CYP2C19\*2/\*2. The total occurrence of clopidogrel low response is 39.5%(79 patients). There is significant difference between clopidogrel low response and CYP2C19 genotypes, metabolizers, indicating that less patients with extensive metabolizer (CYP2C19\*1/\*1) in the clopidogrel response group, more patients with intermediate or poor metabolizers in the clopidogrel low response group.

**CONCLUSIONS** There is correlation between clopidogrel low response and CYP2C19 gene polymorphism in patients with CAD, more carriers with intermediate or poor metabolizers in the clopidogrel low response group.

#### GW26-e3972

##### Non-alcoholic fatty liver disease affects the relationship between epicardium and coronary atherosclerotic heart disease

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**OBJECTIVES** To explore the relationship between the various parts of the visceral fat (VF) and coronary atherosclerotic heart disease (CAD), and to find whether Non-alcoholic fatty liver disease (NAFLD) affects the correlation between VF and CAD. The results can provide a new reference index for the prevention, prediction, treatment and rehabilitation of CAD.

**METHODS** This study selected 339 patients, We used ultrasonography to measure the thickness of various parts VF and NAFLD. According to the results of coronary angiography, we determined the patients with CAD and used Gensini value to evaluate the extent of lesion. Firstly, according to the results of coronary angiography, the patients were divided into CAD group and non CAD group to determine whether the VF, NAFLD are the independent risk factors for CAD. Secondly, according to Gensini value, the patients were divided into three groups to investigate whether there is a relationship between VF and the severity of CAD. Finally, the CAD patients were divided into NAFLD group and non NAFLD group to determine the relationship between NAFLD and VF, and the influence of NAFLD on the relationship between VF and CAD.

**RESULTS** Using the single factor analysis, we found that epicardium, NAFLD, smoking, high blood pressure, HDL-C, LDL-C, TG in CAD group were significantly higher than those in non-CAD group ( $P<0.05$ ). There was no significant difference between the two groups